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ON THREE UNDESCRIBED COPROPHAGOUS LAMELLICORNS IN THE TRING MUSEUM.

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1. *Heliocopris coryndoni* sp. nov.

♂ near *H. pirmal* F.; differs in the coarser reticulations on the thorax, narrower head, three-pointed central thoracic armature, and parallel-sided elytra.

♂. Black, nitid: head with the clypeus rather rounded or slightly sinuated in front, terminating in a sharp angle in front of the transverse carina; the lateral margins are concave, with another angle or point just before the eyes. Front of clypeus covered with a fine network of carinae, with the interspaces very finely alutaceous. A raised bipointed transverse carina is on the disc of the head, very coarsely reticulate behind and at the sides.

Thorax very rough on disc and at sides, with the exception of a smooth cicatrix on each side close to the lateral margins.

Thoracic armature produced in the centre into a deflexed narrow three-pointed process, the two side teeth being very slightly reflexed and the centre one strongly deflexed; from each of the two outside teeth the carina runs semicircularly and forms another large point on each side. Truncation roughly and anterior angles obsoletely pointed; lateral margins produced into a large strong point, which projects anteriorly; the side margins of this point are slightly crenulated; lateral margins rather attenuated posteriorly. Posterior angles blunt, and the hindmargin slightly sinuate and rather produced near the scutellary space. Posterior margins very strongly marginate. Anterior and lateral margins fringed with long reddish brown bristles.

Elytra shining: interstices flat, very sparingly and finely punctured with minute punctures; striae plain, but shallow. Lateral margins almost parallel: margins very strongly marginate. The sutural interstices are much raised.

Pygidium as broad as long, emarginate, and sparingly punctured. Metathorax thickly punctured with setose punctures, with the exception of a longitudinal smooth line on disc, in the centre of which is a longitudinally impressed fine line. Disc of abdomen smooth; sides more or less thickly punctured. Episternum of the metathorax very thickly punctured, and covered with fine reddish brown hairs.

Undersides of femora smooth on disc, coarsely punctured with setose punctures towards the sides. Under and upper sides of the intermediate and posterior tibiae smooth on disc, with a row of large pores or punctures on the inner margin, from base to apex. The punctures are unisetose.

Anterior tibiae three-dentate on exterior margins, the apical tooth being furnished with a small tooth on the disc. Two rows of punctures with a raised edge,

giving the tibiae the appearance of being crenulated, are situated on the disc, the space between them being smooth.

Antennae pitchy, club greyish.

♀. Head produced in front; clypeus slightly reflexed; a tridentate carina on disc, with the centre tooth almost obsolete; lateral margins slightly crenulate.

Thorax not so coarsely punctured as in the ♂; the lateral margins crenulated; the posterior portion and scutellary area thickly granulate; on the disc of the thoracic armature and truncation the granules have run together. The thoracic armature is in the form of a sinuated slightly emarginate carina, somewhat similar to *japetus* ♀, from which, however, it differs in the anteriorly rounded form of the head and tridentate carina.

Elytra dark castaneous; striae punctured; interstices finely punctured with small punctures; sides somewhat roughened and aciculate. Lateral margins strongly emarginate and margined; between the humeral carina and the lateral margin are three punctate striae; interstices rugosely aciculate.

Pygidium shorter than in the ♂, and rather more thickly punctured.

Underside similar to the ♂. Intermediate and posterior tibiae thickly punctured on the upperside, and with the edges rather more thickly punctured on the underside than the ♂.

Anterior tibiae without a tooth on the upperside of the apical tooth.

Long. corp. ♂, ♀, 47 mm.; lat. 27—27½ mm.

Hab. Mpeta, Loangwa River (affluent of the Zambesi), November and December 1895, beginning of rainy season (Coryndon).

Type in Tring Mnsenn.

2. *Helicopris exclamationis* sp. nov.

Near *japetus* Klug. ♂ differs in having a short raised carina on the third interstice, which is also more strongly curved, in the shape of the thoracic armature, and in the shorter head and wider transverse carina.

♂. Black, shining, with the elytra obscure pitchy.

Head rounded in front, with the clypeus slightly reflexed; a central transverse tripointed carina extends across the head, the centre point being the largest. The lateral margins are strongly sinuate, the sinuation being strongest opposite the transverse carina.

Anterior portion finely rugosely reticulate; posterior portion much coarser. Lateral margins fringed with reddish bristles.

Thorax with the disc produced, and with eight distinct angles or points, of which four are situated on the discal carina, the front being rather produced to an obtuse angle which has at each side an obtuse point, and then terminated by a short sharp point. Another carina then extends from near the centre portion of the truncation towards each side, and is furnished near the lower extremity with a sharp point. The carina then extends in a semicircular form towards the lateral margins, but is broken in the centre by a sharp curved angle, which seems to divide the large curve into two smaller curves. The frontal truncature is very coarsely punctured in front, the punctures being rather shallow and running into each other, the sides are very deeply excavated and shining, very minutely punctured and finely alutaceous. Sparingly punctured at the margins.

Disc coarsely punctured with large punctures on the anterior portion, which

become granulated towards the centre, and with the posterior portion near the scutellary region thickly and finely granulate, finely and sparingly punctured on the lobes and finely granulate near the sides. A large, smooth, indented cicatrix is situated on each side near the lateral margins.

Anterior portion of the lateral margins smooth and emarginate: posterior portion rather crenulated and marginate.

Posterior margins widely marginate, with the margin smooth.

Elytra with a somewhat pitchy reflection.

Very fine punctured striae; interstices very sparingly punctured with fine punctures. A short sharp raised carina is situated on the basal third of the third and fourth striae.

Pygidium rather sparingly rugosely granulate.

Metasternum rather depressed towards the anterior extremity and sparingly punctured, the punctures being setose.

Femora smooth on disc, rather thickly punctured with setose punctures at the sides and margins.

Anterior tibiae three-dentate on the exterior margin, with the apical tooth furnished with a short tooth on the upperside at the apex. Hind tibiae rather thickly punctured on the upperside, almost glabrous underneath.

Long. corp. 48 mm.

Hab. Sierra Leone.

Type in Tring Museum.

3. *Aphengium cupreum* sp. nov.

Obscure cupreous; differs from *sordidum* Har. in the thorax being broader and the teeth on the clypens being shorter and almost obsolete and rather more thickly punctured on the elytra.

Head: clypens emarginate and rounded except in centre, where it is broken by two obsolete teeth, rather thickly and finely punctured, the punctures being larger and more coarsely scattered near the thorax.

Thorax twice as broad as long, wider near the anterior angles than at the base. Anterior angles rather produced.

Lateral margins slightly incurved near the anterior angles and then straight to the posterior angles, which are rounded. Posterior margin evenly rounded. Disc rather produced into an obtuse hump near the anterior margin, rather coarsely punctured with a few large hirsute pores: sides very thickly covered with close punctures and with a few reddish brown setae scattered round the margins. A cicatrix is situated at each side, remote from the lateral margins. Elytra plainly striated; interstices thickly punctured and covered with reddish setae.

Pygidium dull and pointed, strongly emarginate and almost smooth.

Metasternum and abdomen finely punctured in centre with fine setose punctures, very coarsely and thickly punctured at sides.

Long. corp. 9 mm.

Hab. Espirito Santo, S. Brazil.

Type in Tring Museum.